

Figure 1

SEQ ID NO: 12

GTCATGAAAT TGGAAATCTGA CAAGACGTTT CCAATCATGT TGGAAGGGAA
GATAAACGGC TACGCTTGTG TGGTCGGAGG GAAGTTATTC AGGCCGATGC
ATGTGGAAGG CAAGATCGAC AACGACGTTT TGGCCGCGCT TAAGACGAAG
AAAGCATCCA AATACGATCT TGAGTATGCA GATGTGCCAC AGAACATGCG
GGCCGATACA TTCAAATACA CCCATGAGAA ACCCCAAGGC TATTACAGCT
GGCATCATGG AGCAGTCCAA TATGAAAATG GGCCTTTCAC GGTGCCGAAA
GGAGTTGGGG CCAAGGGAGA CAGCGGACGA CCCATTCTGG ATAACCAGGG
ACGGGTGGTC GCTATTGTGC TGGGAGGTGT GAATGAAGGA TCTAGGACAG
CCCTTTCAGT CGTCATGTGG AACGAGAAGG GAGTTACCGT GAAGTATACT
CCGGAGAACT GCGAGCAATG GTAATGA

SEQ ID NO: 1

VMKLESDKTF PIMLEGKING YACVVGKLE RPMHVEGKID NDVLAALKTK
KASKYDLEYA DVPQNMRA DT FKYTHEKPQG YYSWHHGA VQ YENGRETVPK
GVGAKGDSGR PILDNQGRV AIVLGGVNEG SRTALSVVMW NEKGVTVKYT
PENCEQW

Figure 2A

SEQ ID NO: 31

Adaptein-1 nucleotide sequence:

GTCATGAAAT TGGAATCTGA CAAGACGTTT CCAATCATGT TGGAAGGGAA
GATAAAGGGC TACGCTTG TGTCGGAGG GAAGTTATTC AGGCCGATGC
ATCTGCAAGC CAAGATCGAC AACGACGTTT TGGCCGCGCT TAAGACGAAG
AAAGCATCCA AATACGATCT TGAGTATGCA GATGTGCCAC AGAACATGCG
GGCCGATACA TTCAAATACA CCCATGAGAA ACCCCAAGGC TATTACAGCT
GGCATCATGG AGCAGTCCAA TATGAAAATG GCGTTTCAC GGTGCCGAAA
GGAGTTGGGG CCAAGGGAGA CAGCGGACGA CCCATTCTGG ATAACCAGGG
ACGGGTGGTC GCTATTGTGC TGGGAGGTGT GAATGAAGGA TCTAGGACAG
CCCTTTCAGT CGTCATGTGG AACAAGCTTT CTCCACATTA TGCTCAACTC
GAGGGAGTTA CCGTGAAGTA TACTCCGGAG AACTGCGAGC AATGGTAATG
AGC

SEQ ID NO: 32

Adaptein-2 nucleotide sequence:

GTCATGAAAT TGGAATCTGA CAAGACGTTT CCAATCATGT TGGAAGGGAA
GATAAAGGGC TACGCTTG TGTCGGAGG GAAGTTATTC AGGCCGATGC
ATCTGGAAGC CAAGATCGAC AACGACGTTT TGGCCGCGCT TAAGACGAAG
AAAGCATCCA AATACGATCT TGAGTATGCA GATGTGCCAC AGAACATGCG
GGCCGATACA TTCAAATACA CCCATGAGAA ACCCCAAGGC TATTACAGCT
GGCATCATGC AGCACTCCAA TATGAAAATG GCGTTTCAC GGTGCCGAAA
GGAGTTGGGG CCAAGGGAGA CAGCGGACGA CCCATTCTGG ATAACCAGGG
ACGGGTGGTC GCTATTGTGC TGGGAGGTGT GAATGAAGGA TCTAGGACAG
CCCTTTCAGT CGTCATGTGG AACAAGCTTA GAAGCGGTAC TCAATGGCTC
GAGGGAGTTA CCGTGAAGTA TACTCCGGAG AACTGCGAGC AATGGTAATG
AGC

Adaptein-1 protein sequence: SEQ ID NO: 33

VMKLESDKTF PIMLEGKING YACVVGGKLF RPMHVEGKID NDVLAALKTK
KASKYDLEYA DVPQNMRA DT FKYTHEKPGQ YYSWHHGAVQ YENGRFTVPK
GVGAKGDSGR PILDNQGRVV AIVLGGVNEG SRTALSVVMW NKLSPHYAQL
EGVTVKYTPE NCEQW

SEQ ID NO: 34

Adaptein-2 protein sequence:

VMKLESDKTF PIMLEGKING YACVVGGKLF RPMHVEGKID NDVLAALKTK
KASKYDLEYA DVPQNMRA DT FKYTHEKPGQ YYSWHHGAVQ YENGRFTVPK
GVGAKGDSGR PILDNQGRVV AIVLGGVNEG SRTALSVVMW NKLSRGTQWL
EGVTVKYTPE NCEQW

205101-52559

Alignment of adaptein nucleotide sequences with CCD sequence:

A-1 GTCATGAAAT TGGAATCTGA CAAGACGTTT CCAATCATGT TGGAAGGGAA
A-2 GTCATGAAAT TGGAATCTGA CAAGACGTTT CCAATCATGT TGGAAGGGAA
CCD GTCATGAAAT TGGAATCTGA CAAGACGTTT CCAATCATGT TGGAAGGGAA

A-1 GATAAACGGC TACGCTTGTG TGGTCGGAGG GAAGTTATTC AGGCCGATGC
A-2 GATAAACGGC TACGCTTGTG TGGTCGGAGG GAAGTTATTC AGGCCGATGC
CCD GATAAACGGC TACGCTTGTG TGGTCGGAGG GAAGTTATTC AGGCCGATGC

A-1 ATGTGGAAGG CAAGATCGAC AACGACGTTT TGGCCGCGCT TAAGACGAAG
A-2 ATGTGGAAGG CAAGATCGAC AACGACGTTT TGGCCGCGCT TAAGACGAAG
CCD ATGTGGAAGG CAAGATCGAC AACGACGTTT TGGCCGCGCT TAAGACGAAG

A-1 AAAGCATCCA AATACGATCT TGAGTATGCA GATGTGCCAC AGAACATGCG
A-2 AAAGCATCCA AATACGATCT TGAGTATGCA GATGTGCCAC AGAACATGCG
CCD AAAGCATCCA AATACGATCT TGAGTATGCA GATGTGCCAC AGAACATGCG

A-1 GGCCGATACA TTCAAATACA CCCATGAGAA ACCCCAAGGC TATTACAGCT
A-2 GGCCGATACA TTCAAATACA CCCATGAGAA ACCCCAAGGC TATTACAGCT
CCD GGCCGATACA TTCAAATACA CCCATGAGAA ACCCCAAGGC TATTACAGCT

A-1 GGCATCATGG AGCAGTCCAA TATGAAAATG GGCCTTTTAC GGTGCCGAAA
A-2 GGCATCATGG AGCAGTCCAA TATGAAAATG GGCCTTTTAC GGTGCCGAAA
CCD GGCATCATGG AGCAGTCCAA TATGAAAATG GGCCTTTTAC GGTGCCGAAA

A-1 GGAGTTGGGG CCAAGGGAGA CAGCGGACGA CCCATTCTGG ATAACCAGGG
A-2 GGAGTTGGGG CCAAGGGAGA CAGCGGACGA CCCATTCTGG ATAACCAGGG
CCD GGAGTTGGGG CCAAGGGAGA CAGCGGACGA CCCATTCTGG ATAACCAGGG

A-1 ACGGGTGGTC GCTATTGTGC TGGGAGGTGT GAATGAAGGA TCTAGGACAG
A-2 ACGGGTGGTC GCTATTGTGC TGGGAGGTGT GAATGAAGGA TCTAGGACAG
CCD ACGGGTGGTC GCTATTGTGC TGGGAGGTGT GAATGAAGGA TCTAGGACAG

(HindIII) (XhoI)
A-1 CCTTTTCAGT CGTCATGTGG AAC---AAGCTT TCTCCACATTA TGCTCAA CTCGA
A-2 CCTTTTCAGT CGTCATGTGG AAC---AAGCTT AGAAGCGGTAC TCAATGG CTCGA
CCD CCTTTTCAGT CGTCATGTGG AACGAG-----

A-1 ---GGAGTTA CCGTGAAGTA TACTCCGGAG AACTGCGAGC AATGGTAATGAGC
A-2 ---GGAGTTA CCGTGAAGTA TACTCCGGAG AACTGCGAGC AATGGTAATGAGC
CCD AAGGGAGTTA CCGTGAAGTA TACTCCGGAG AACTGCGAGC AATGGTAATGAGC

Figure 2B

Figure 2C

A-1	VMKLESDKTF	PIMLEGKING	YACVVGGKLF	RPMHVEGKID	NDVLAALKTK
A-2	VMKLESDKTF	PIMLEGKING	YACVVGGKLF	RPMHVEGKID	NDVLAALKTK
CCD	VMKLESDKTF	PIMLEGKING	YACVVGGKLF	RPMHVEGKID	NDVLAALKTK

A-1	KASKYDLEYA	DVPQNMRA DT	FKYT HEKPQ G	YYSWHHGAVQ	YENGRFTV PK
A-2	KASKYDLEYA	DVPQNMRA DT	FKYT HEKPQ G	YYSWHHGAVQ	YENGRFTV PK
CCD	KASKYDLEYA	DVPQNMRA DT	FKYT HEKPQ G	YYSWHHGAVQ	YENGRFTV PK

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A-1  GVGAKGDSGR  PILDNQGRVV  AIVLGGVNEG  SRTALSVVMW  N-KLSPHYAQL
A-2  GVGAKGDSGR  PILDNQGRVV  AIVLGGVNEG  SRTALSVVMW  N-KLRSGTQWL
CCD  GVGAKGDSGR  PILDNQGRVV  AIVLGGVNEG  SRTALSVVMW  NE-----
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A-1	-G VTVKYTPE	NCEQW
A-2	-G VTVKYTPE	NCEQW
CCD	KG VTVKYTPE	NCEQW

REPORT

Figure 3

SEQ ID NO: 6

5'ATGTACGGTCGTAAAAACGTCGTCAGCGTCGTCGTCATGAAATTGGAA
TCTGACAAGACGTTCCCAATCATGTTGGAAGGGAAGATAAACGGCTACGCTT
GTGTGGTCCGAGGGAAGTTATTCAGGCCGATGCATGTGGAAGGCAAGATCGA
CAACGACGTTCTGGCCGCGCTTAAGACGAAGAAAGCATCCAAATACGATCTT
GAGTATGCAGATGTGCCACAGAACATGCGGGCCGATACATTCAAATACACCC
ATGAGAAACCCCAAGGCTATTACAGCTGGCATCATGGAGCAGTCCAATATGA
AAATGGGCGTTTCACGGTGCCGAAAGGAGTTGGGGCCAAGGGAGACAGCGG
ACGACCCATTCTGGATAACCAGGGACGGGTGGTCGCTATTGTGCTGGGAGGT
GTGAATGAAGGATCTAGGACAGCCCTTTCAGTCGTCATGTGGAACAAGCTTG
GATCTTCTCTCGAGGGAGTTACCGTGAAGTATACTCCGGAGAACTGCGAGCA
ATGGTAA3'.

SEQ ID NO: 7

MYGRKKRRQRRRVMKLESDKTFPIMLEGKINGYACVVGGKLF RPMHVEGKIDN
DVLAAALKTKKASKYDLEYADV PQNMRADTFKYTHEKPQGYYSWHHGAVQYE
NGRFTVPKGVGAKGDSGRPILDNQGRVVAIVLGGVNEGSRTALSVVMWNEKGV
TVKYTPENCEQW.